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SITE SPECIFICATIONS

for the

KODAK X-OMAT Multiloader 300

KODAK X-OMAT Multiloader 300Plus

and

the *KODAK XML300* Darkroom Film Feeder

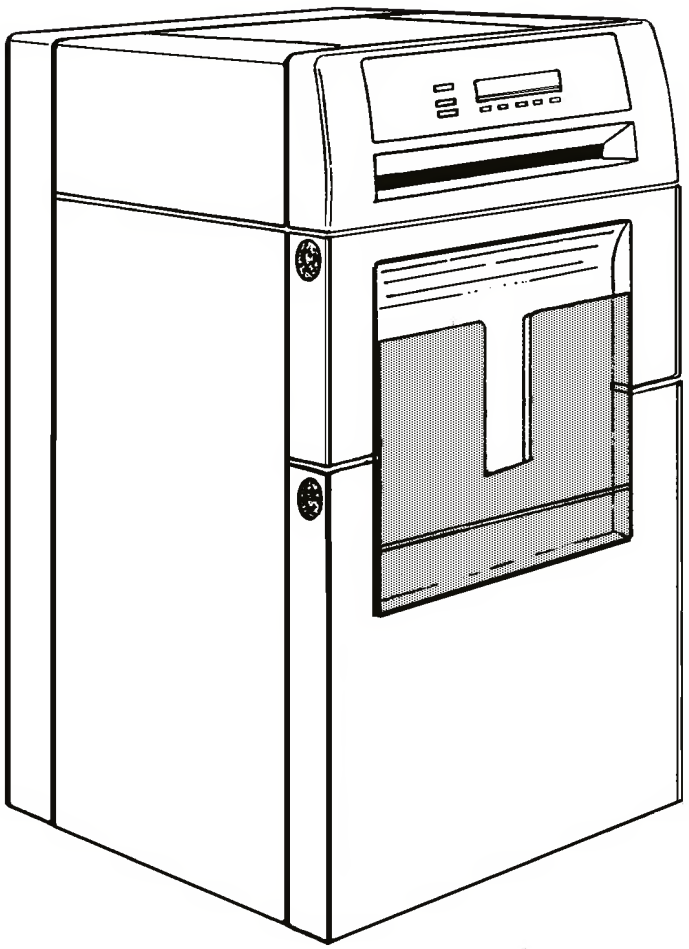

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TABLE OF CONTENTS

PHYSICAL DIMENSIONS 1-2

MINIMUM CLEARANCES 1-4

ELECTRICAL REQUIREMENTS 1-5

EQUIPOTENTIAL EQUILIZATION DEVICE (Europe only) 1-7

ROOM ENVIRONMENT 1-7

AIR AND HEAT 1-8

AIR EXHAUST (full load): 1-8

TIME OF LOAD/UNLOAD CYCLE 1-8

FILM MAGAZINES 1-8

INSTALLATION 1-8

WATER SUPPLY 1-9

DRAIN 1-9

REPLENISHMENT TANKS 1-11

SERVICES 1-12

BUILDING EXHAUST DUCT 1-13

CENTER OF GRAVITY 1-15

SUPPLEMENT
for the
XML300 / XML300Plus with the
KODAK XML 300 Dark Room Film Feeder 2-1

PHYSICAL DIMENSIONS 2-2

MINIMUM CLEARANCES 2-3

CUT-OUT IN THE DARK ROOM WALL. 2-4

WOODEN FRAME 2-5

SERVICES 2-6

ESD

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Note

The KODAK X-OMAT Multiloader 300 and the KODAK X-OMAT Multiloader 300Plus are called hereafter XML300 and XML300Plus

PHYSICAL DIMENSIONS

A. Size and Weight with integrated 270RA/ 3000RA processor:

Crated (With Pallet):	Height: 150 cm	(59 in)
	Width: 106 cm	(42 in)
	Depth: 97 cm	(38 in)
	Weight: 380 kg	(838 lbs)
Uncrated	Height: 128 cm (50.4 in)	
	Maximum with adjustable Levelling Feet: 130.3 cm (51.3 in)	
	Width: 82.5 cm	(32.5 in)
	Depth: 85.3 cm	(33.6 in)
	Weight: 350 kg	(771 lbs)

Total weight with full film load and solutions: 395 kg (871 lbs)

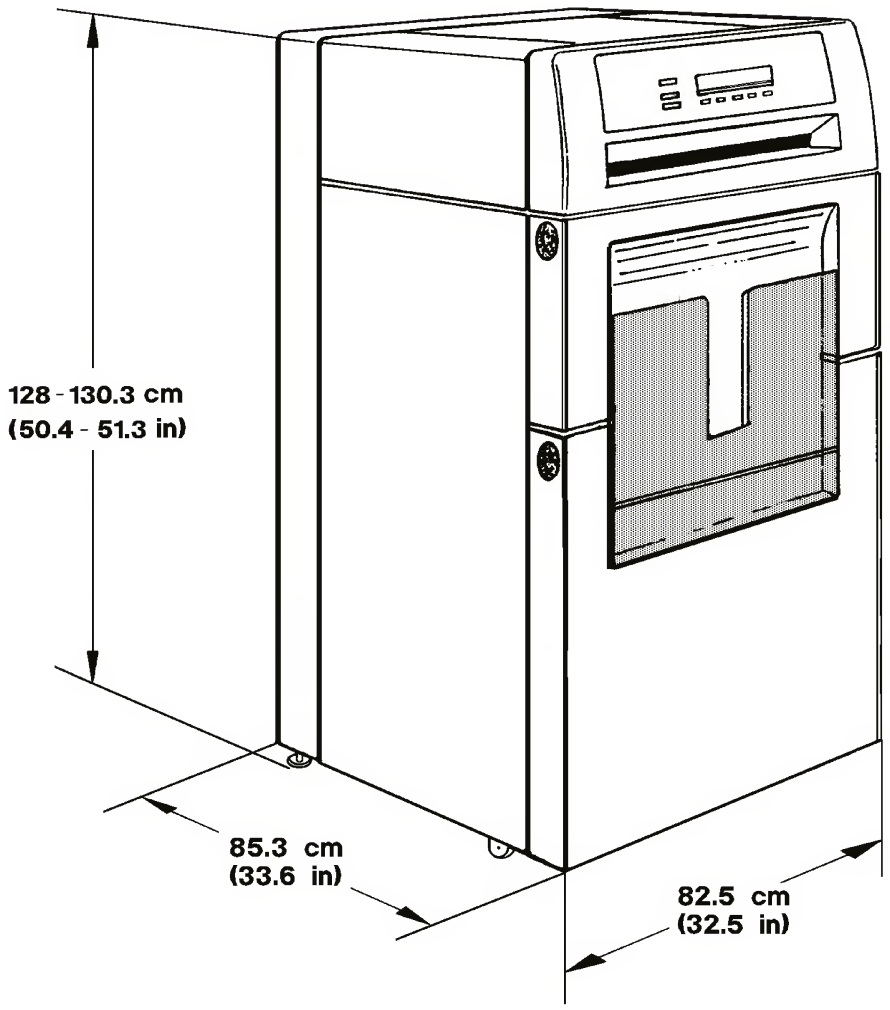
B. Pallet Dimensions	Height: 19 cm	(8 in)
	Width: 97 cm	(38 in)
	Depth: 109 cm	(43 in)
Fork-Lift Truck Clearance:	Width: 42 cm	(17 in)
	Height: 10 cm	(4 in)

The pallet is open on two sides. The pallet has a 13.5 cm (5.3 in) guard rail on three sides, thus the XML300 / XML300Plus may be removed from it on one side only. Additionally, the pallet is a disposable type which does not have to be returned.

1. The XML300 / XML300Plus has four non-adjustable casters.

2. Levelling feet are supplied to level the entire XML300 / XML300Plus.

3. Cassettes can protrude up to approximately 12 cm (5 in) when returned from the XML300 / XML300Plus



MINIMUM CLEARANCES

Important

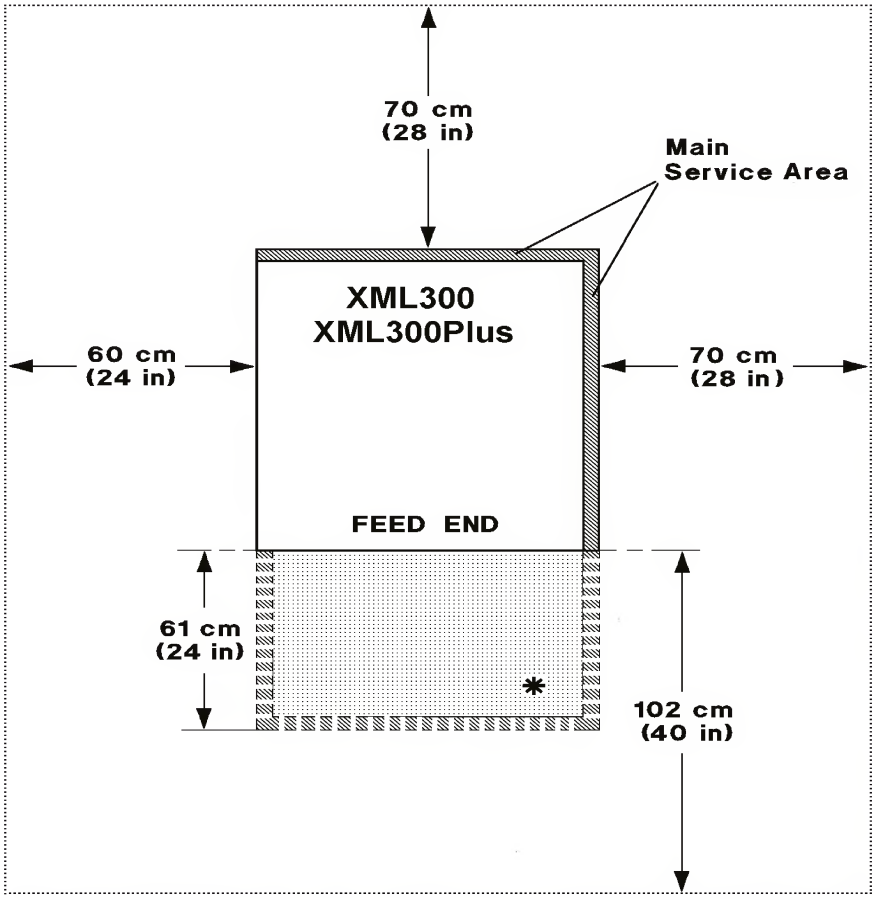
Installations with less than the minimum clearances may reduce the effectiveness of the operation and impede service.

Clearances	Minimum:	
Feed End	102 cm	(40 in)
Left Side	60 cm	(24 in)
Right Side	70 cm	(28 in)
Rear Side	70 cm	(28 in)
Top	80 cm	(31 in)

Nothing may be located under the XML300 / XML300Plus.

Note

If the XML300 / XML300Plus is installed on a pedestal, ensure that the pedestal is big enough to support the rolled out PROCESSOR!



* Smooth and flat floor necessary for smooth rolling out of Processor

ELECTRICAL REQUIREMENTS

The XML300 / XML300Plus can be connected to any of the following services:

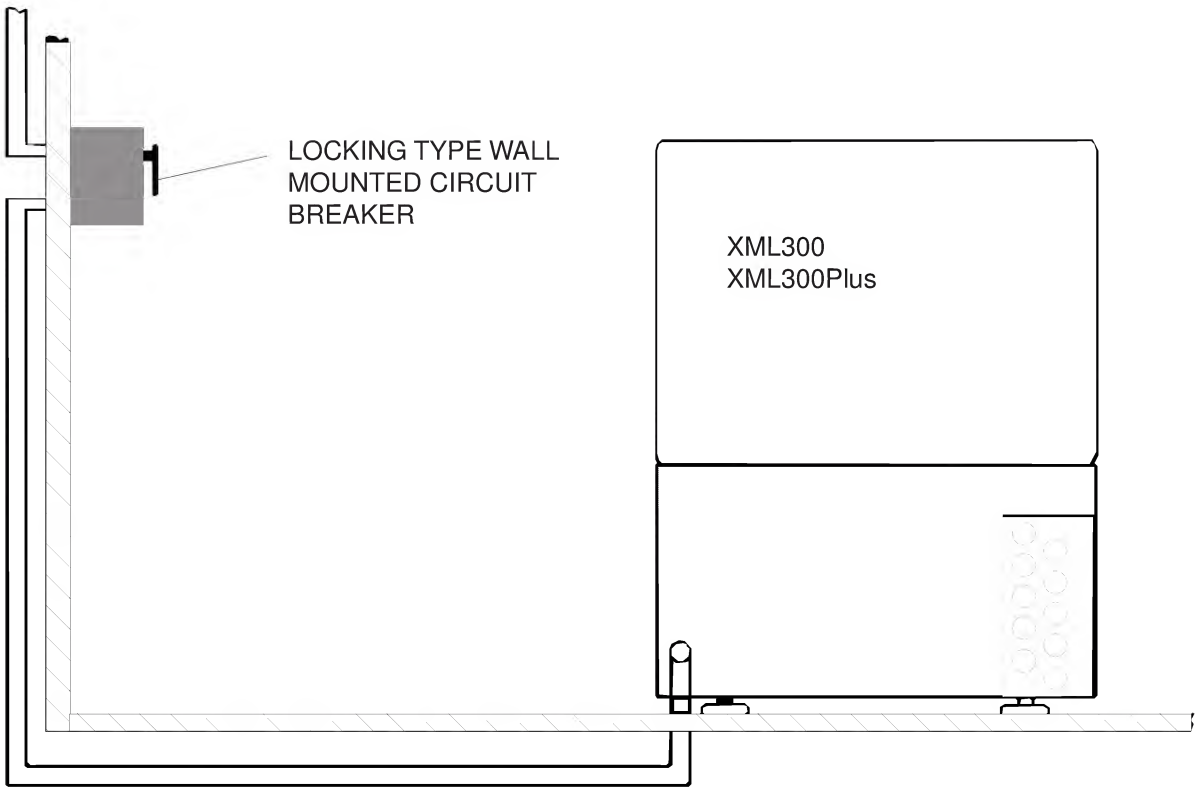
Note

For all services a GROUND WIRE (N = Neutral) must be provided.

NOTE	System Mains (V)	Frequenzy (Hz)	Phases	Current (A)	Service Wires	Mains Circuit Breaker		
						A/Phase Europe	A/Phase US	Poles
1	200	50 / 60	1 / 2	24	2 / 3	32	30	2
1	220	50 / 60	1 / 2	24	2 / 3	32	30	2
1	230	50 / 60	1 / 2	24	2 / 3	32	30	2
1	240	50 / 60	1 / 2	24	2 / 3	32	30	2
2	200	50 / 60	3	19	3	32	20	3
2	127/220	50 / 60	3	19	4	32	20	4
3	127/220	50 / 60	3	24	3	32	30	3
4	220/380	50 / 60	3	11	4	16	20	4
4	230/400	50 / 60	3	11	4	16	20	4
4	240/415	50 / 60	3	11	4	16	20	4
2	120/208	60	3	19	4	32	20	4
3	120/208	60	3	24	3	32	30	3

NOTE	DESCRIPTION
1	L1, N, / L1, L2 used in this configuration
2	L1, L2, L3 used in this configuration
3	L1, L2 used in this configuration
4	L1, L2, L3 and N used in this configuration

1. A dedicated locking type main power disconnect switch, consisting of a thermomagnetic circuit breaker or fused disconnect must be provided in close proximity to the unit. The wall mounted main power disconnect switch and wiring between the XML300 / XML300Plus and the power source is not furnished.
See the drawing on the next page.



2. The XML300 / XML300Plus complies with:
FCC Rules and Regulations,
Part 15, Subpart J, Class A equipment,
VDE specifications
0875/6.77 and 0871/6.78
EEC Directive 76/889.
UL specification 122,
CSA specification 22.2 No.950,
TÜV/GS specification EN 60950,
Med. GV specifications.

3.

Warning

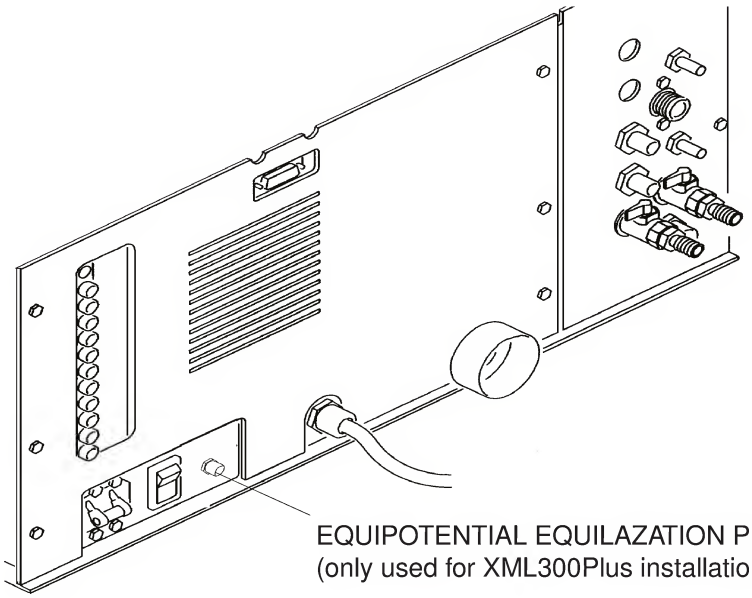
All electrical services, including earth ground, must comply with local and national electric regulations.

Locate the Circuit Breaker a safe distance from water.

EQUIPOTENTIAL EQUILIZATION DEVICE (Europe only)

Warning

According to european safety regulations for medical devices, the **KODAK X-OMAT Multiloader 300 Plus** must be properly connected to the EQUIPOTENTIAL EQUILIZATION DEVICE if the unit is operated within a distance of 1.5 m from a patient. The EQUIPOTENTIAL EQUILIZATION DEVICE and the CONNECTING CABLE must be provided by the customer.



EQUIPOTENTIAL EQUILAZATION PLUG
(only used for XML300Plus installations in europe)

ROOM ENVIRONMENT

Temperature:	Recommended:	18 - 24 °C (65-75 °F)
	Limits:	15 - 30 °C (59-86 °F)
Relative Humidity:	Recommended:	30-60%

Film quality may be affected if the unit is operated beyond the recommended environmental range.
Operational problems may be encountered if temperature and relative humidity are beyond the recommended values.
Prolonged exposure to relative humidity above the recommended range may cause the film to double feed or to jam in the supply magazines.

Lighting: The XML300 / XML300Plus can be operated in normal room lighting of 5000 lux (465 foot - candles) maximum.

Floor gradient: The maximum gradient of the floor on which the system is installed has to be below 1%. That means the floor must not incline more than 1cm per meter in either direction. Otherwise it will not be possible to roll out the film processor from the XML300 / XML300Plus.

AIR AND HEAT

Air: Approximately 127 m^3/hour (75ft^3/min) enters the XML300 / XML300Plus. Adequate air flow around the unit must be allowed.

Heat: Approximately 1800 kJ/hour (1706 Btu/hour) in standby mode.
Approximately 9700 kJ/hour (9194 Btu/hour) during operation.
A portion is dissipated through the processor, and is vented through the XML300 / XML300Plus exhaust, not into the room.

Heat load to room: 4220 kj/hr 4000 Btu/hr

AIR EXHAUST (full load):

Volume: 2.124 L/min (75 ft^3/min)

Temperature: 66°C (150°F) (maximum)

Exhaust adapter: 7.62 cm (3") diameter

TIME OF LOAD/UNLOAD CYCLE

Time for unloading and loading of the Cassette (time between input and output of the Cassette) during a standard cycle is approximately 18 seconds. The time depends on the processor cycle, film size and magazine location.

FILM MAGAZINES

The XML300 / XML300Plus is delivered with three film supply magazines, which can be configured to the following film sizes:

- 35 x 43 cm
- 35 x 35 cm
- 30 x 40 cm*
- 30 x 35 cm
- 24 x 30 cm
- 24 x 30 cm mammography
- 24 x 24 cm
- 20 x 40 cm*
- 18 x 43 cm
- 18 x 24 cm
- 18 x 24 cm mammography
- 11 x 14 inch*
- 10 x 12 inch*
- 8 x 10 in.*
- 8 x 10 in. Video Film Holder (CRT)

The magazines must be loaded with film under safelight conditions.

* These sizes may not be available in all countries.

INSTALLATION

1. The site must be properly prepared before the XML300 / XML300Plus is installed.

2. The XML300 / XML300Plus was designed to accept KODAK X-OMATIC Cassettes, KODAK MIN-R 2 / MIN-R2000 Cassettes, and KODAK X-OMATIC Video Film Holders.

   Type II Cassettes require a reflective sticker placed on their outside surfaces for automatic sensing. Manual loading of type 2 is available through the control panel of the XML300 / XML300Plus.

3. A Field Engineer (Service Provider) will visit the premises during Kodak´s normal working hours to inspect the site where the XML300 / XML300Plus is to be installed. At that time it will be determined whether the site has been prepared properly for the equipment installation. The customer will be notified of any areas that need further preparation.

   If local labour regulations permit, installation of the XML300 / XML300Plus will be done by a Field Engineer (Service Provider). At installations where this is not possible, installation charges are the responsibility of the customer. An Field Engineer will be on site to provide assistance, if required.

WATER SUPPLY

Important

- Water supply must comply with local codes; iron piping is not recommended.
- If the upper limit of the water supply temperature is exceeded, a water chiller may be required.
- Tempered water service is suggested for cleaning the processor section and for mixing chemicals manually.

Water Temperature:
Minimum temperature: 4°C (40°F)
Maximum temperature: 29.5°C (85°F)

Pressure: 173 to 692 kPa (25 to 100 psi); install regulator if required.

Flow Volume: controlled within the processor to 3.8 L/min (1.0 gal/min), +10%-0%

Filtration: 50 micron filter required (not supplied by Kodak) in the input water line.

Check Valve: The processor portion has an internal 5 in. water gap in the wash rack. A check valve (or vacuum breaker) should not be necessary, however, check and observe Local Codes.

Important

DRAIN

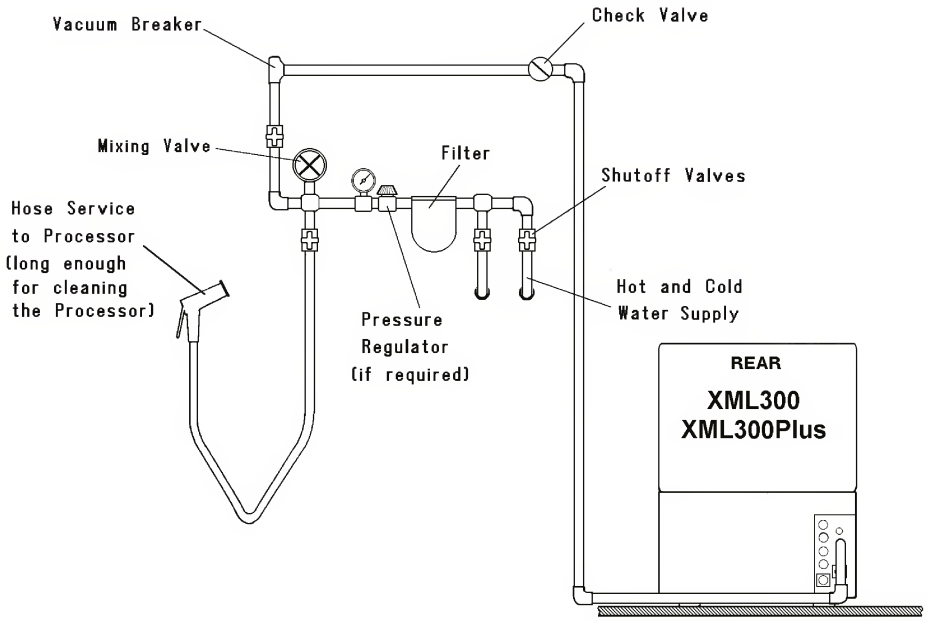
- Do not use brass or copper for the drain lines.
- Do not make a solid connection between the XML300 / XML300Plus drain
- Drain service must comply with local codes.
- Wash water drain should be within 1.5 m (60 in.) of the processor and the hose should slope **gradually downward to the floor drain.**

Important

Capacity: 15 L/min (4 gal/min)

Connection: 76 mm (3 in.) diameter, corrosive resistant recommended.

- Follow local plumbing code
- Recommended Pipe Size: 1/2 IPS
- Connection parts not furnished by Eastman Kodak Company.
- The water connection fitting is a garden hose fitting.



REPLENISHMENT TANKS

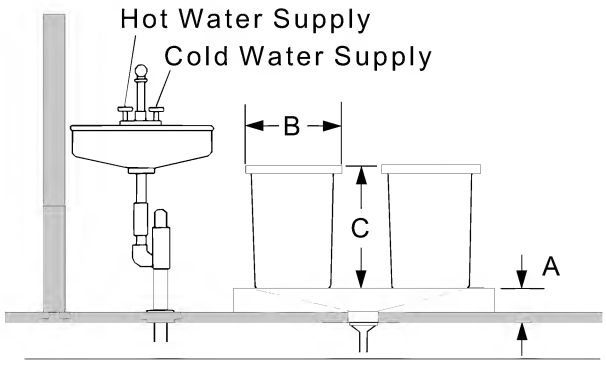
Table 3 Dimensional Requirements for the Replenisher Tanks

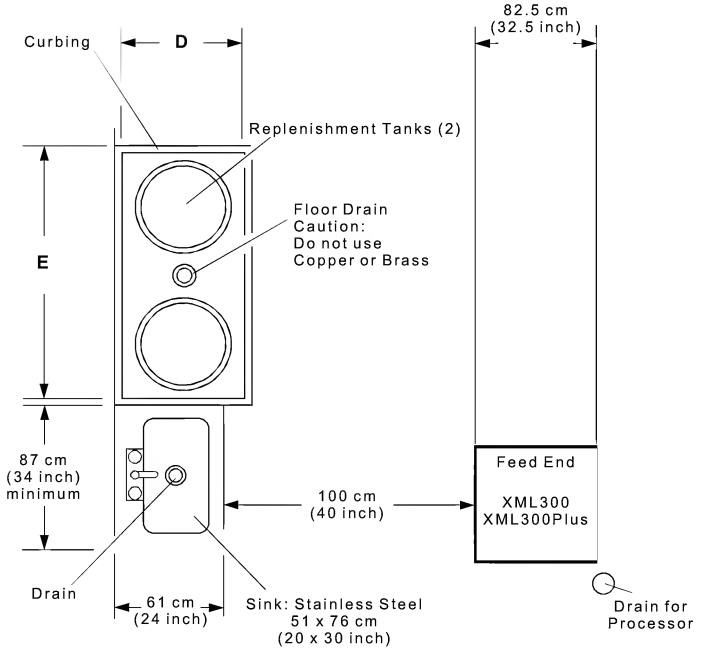
Description	Dimension	Replenisher Tank Size		
		14 Gallons	30 Gallons	55 Gallons
Max Platform Height	"A"	483 mm (19 in.)	356 mm (14 in.)	152 mm (6 in)
Diameter	"B"	432 mm (17 in.)	559 mm (22 in.)	610 mm (24 in.)
Tank Height	"C"	584 mm (23 in.)	705 mm (27 3/4 in.)	908 mm 35 3/4 in.)
External Replenishment Tank area	"D" x "E" (Min)	61 x 127cm (24 x 50 in)	61 x 152.4cm (24x 60 in)	66 x 172.7 cm (26 x 68 in)

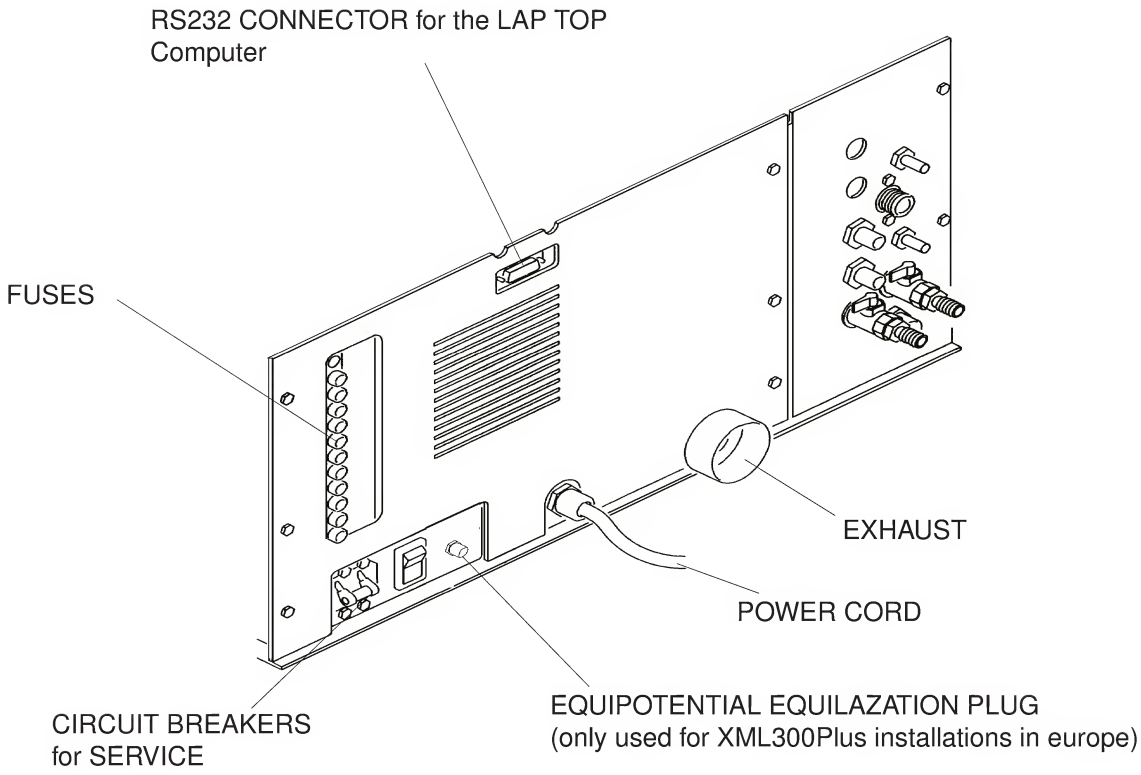
Note

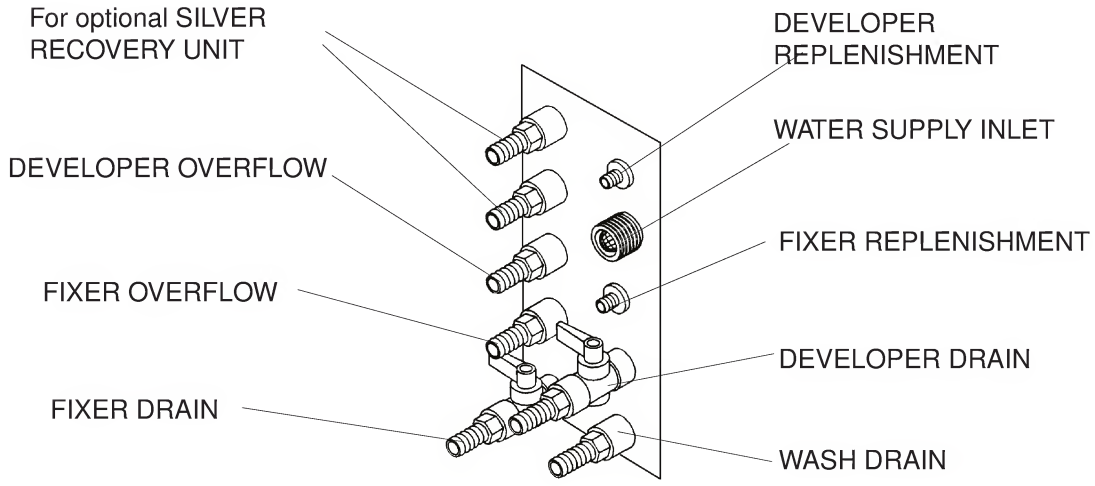
The Level in the replenishment tanks is limited to 76 cm (30 in) to eliminate unwanted flow through the replenishment pumps.

SUGGESTED LAYOUT PLAN






RS232 CONNECTOR for the LAP TOP Computer
FUSES
EXHAUST
POWER CORD
CIRCUIT BREAKERS for SERVICE
EQUIPOTENTIAL EQUILAZATION PLUG (only used for XML300Plus installations in europe)


For optional SILVER RECOVERY UNIT
DEVELOPER REPLENISHMENT
WATER SUPPLY INLET
DEVELOPER OVERFLOW
FIXER REPLENISHMENT
FIXER OVERFLOW
DEVELOPER DRAIN
FIXER DRAIN
WASH DRAIN

BUILDING EXHAUST DUCT

Important

- It is important that the XML300 / XML300Plus has correct venting.
- If the venting is not correct fumes may cause corrosion to the XML300 / XML300Plus.
- Do not install the system if the XML300 / XML300Plus is not correctly vented.
- The air flow is correct when the fumes are flowing out of the XML300 / XML300Plus through the Exhaust Hose.
- Before installing or at the next service call do the following procedure to check that the air flow is correct.

Do the following procedure, using an Air Meter TL-2431 to check that venting is correct:

1. Switch off the XML300 / XML300Plus.

2. Place the Rubber Hose on the centre Connector of the Air Meter.

3. Disconnect the Exhaust Hose from theXML300 / XML300Plus Exhaust Duct.

4. If a Replenishment Check Tube Assembly is available, do step 5 - 8.

Note

If no Replenishment Check Tube Assembly is available, advance to step 9.

5. Remove the curved end of the Replenishment Check Tube part no. 592380 by cutting the curved end.

6. Install the Tapered End of the Replenishment Check Tube on the Rubber Hose.

Important

The Replenishment Check Tube must be at the centre of the Exhaust Duct.

7. Move the Replenishment Check Tube in the Exhaust Hose until the end of the Check Tube is 30.5 cm (12 in) from the end of the Exhaust Hose.

Note

8. Advance to step 12.

An example of a Hose Support is a straightened Coat Hanger.

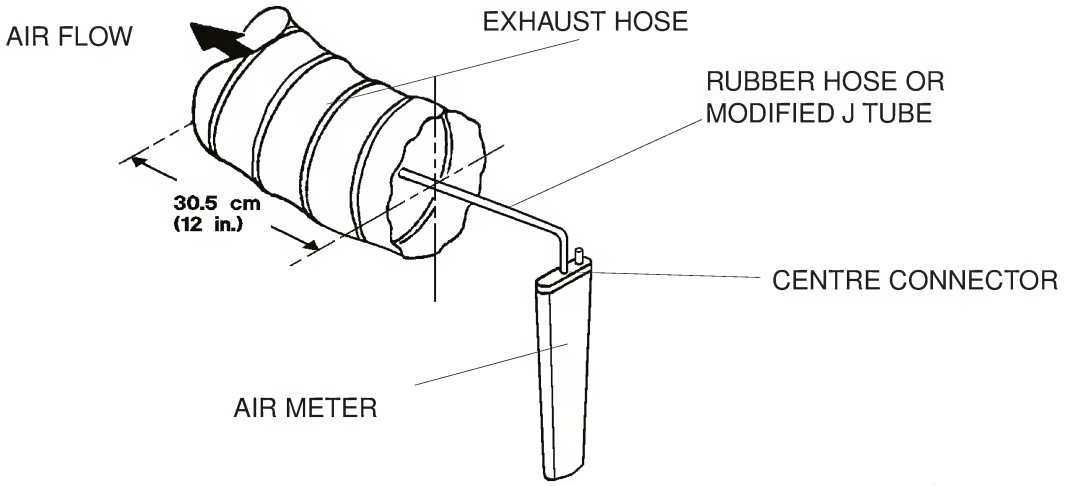
9. Align a Hose Support next to the Rubber Hose. The ends of the Hose Support and the Rubber Hose must be together.

Important

The tape should not inhibit the air flow through the Rubber Hose.

The Rubber Hose must be in the centre of the Exhaust Duct.

10. Place tape around the Hose Support and the Rubber Hose at 2 points.



11. Move the Rubber Hose into the Exhaust Hose using the Hose Support until the end of the Rubber Hose is 30.5 cm (12in.) from the end of the Exhaust Hose.

12. Place the Air Meter vertically, and record the average of several readings.

13. Compare the average reading with the table(shown on page 15).

14. Adjust one of the following to obtain the required reading. See figure next page. The Damper (or Fan) in the Building Ventilation System,the clearance on the Exhaust Duct.

15. If the Air Flow is still not correct contact the Sales Representative and the Customer to correct the venting.

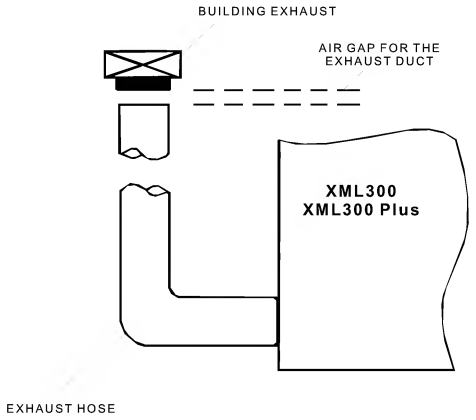
16. When the Air Flow reading is the same as the measurements in the table, connect the exhaust hose to the XML300 / XML300Plus.

Important

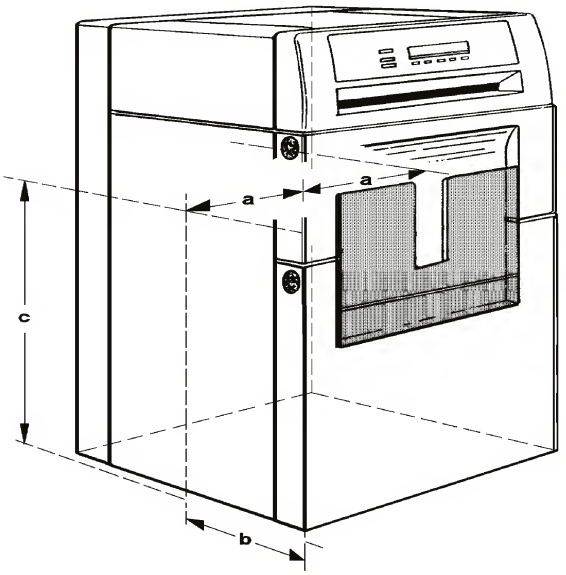
Inform the customer that all Covers and Panels must be installed for proper air flow.

17. If necessary install the Covers and Panels.

	Negative Static Pressure, Water Head	
Duct Diameter	**MIN**	**MAX**
76 mm (3 in.)	0.76 mm (0.03 in.)	1.02 mm (0.04 in.)
102 mm (4 in.)	0.25 mm (0.01 in.)	0.51 mm (0.02 in.)



CENTER OF GRAVITY



a = 41.3 cm (16.2 in)

b = 44 cm (17.3 in)

c = 79 cm (31.1in)

SUPPLEMENT
for the
XML300 / XML300Plus with the
KODAK XML 300 Dark Room Film Feeder

ESD

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

PHYSICAL DIMENSIONS

A. Size and Weight of the KODAK XML300 Plus Dark Room Film Feeder:

Crated (With Pallet):	Height:	125cm	(49.2in)
	Width:	87cm	(34.3in)
	Depth:	31cm	(12.2in)
	Weight:	50kg	

MINIMUM CLEARANCES

Important

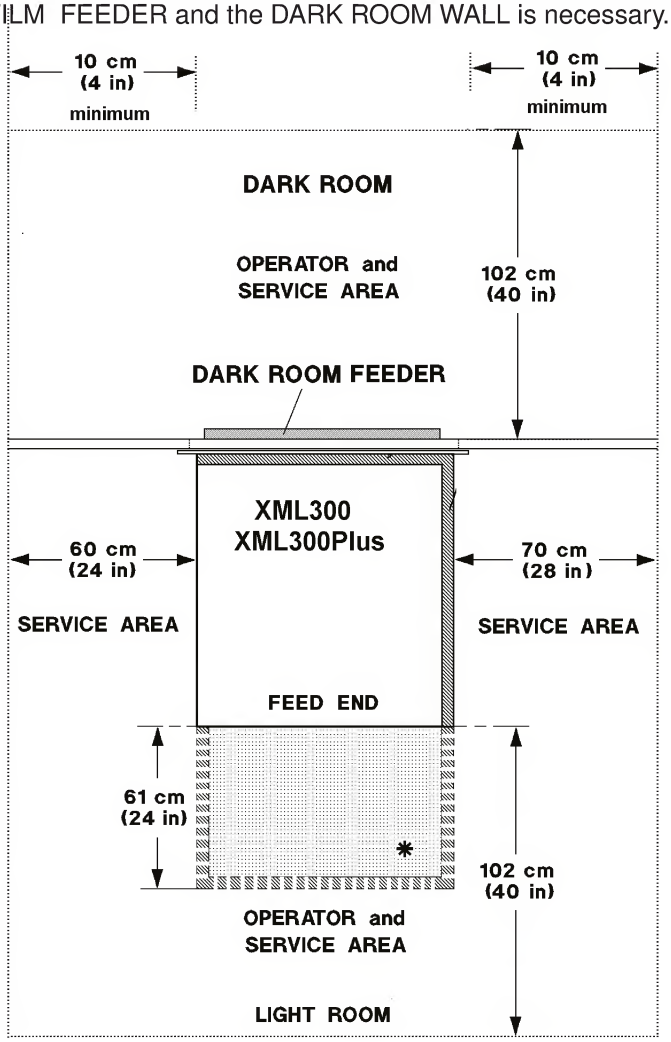
Installations with less than the minimum clearances may reduce the effectiveness of the operation and impede service.

Clearances	Minimum:	
Feed End	102 cm	(40 in)
Left Side	60 cm	(24 in)
Right Side	70 cm	(28 in)
Rear Side	102 cm	(28 in)
Top	80 cm	(31 in)

Nothing may be located under the XML300Plus.

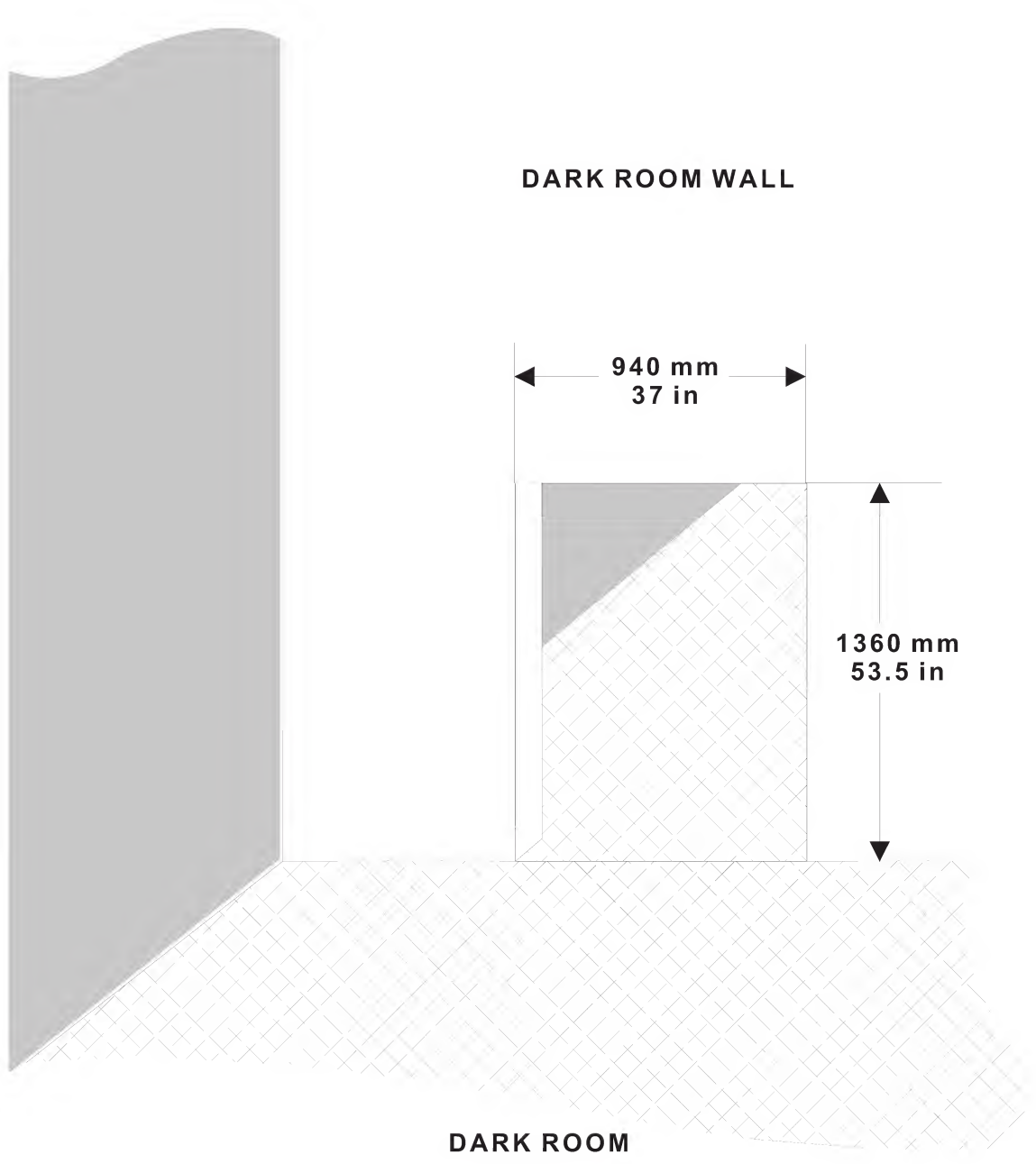
Clearances above the equipment are not labelled on the drawing. Please refer to the table on this page.

Only a minimum clearance of 10cm between the side of the KODAK XML300 / XML300 Plus DARK ROOM FILM FEEDER and the DARK ROOM WALL is necessary.



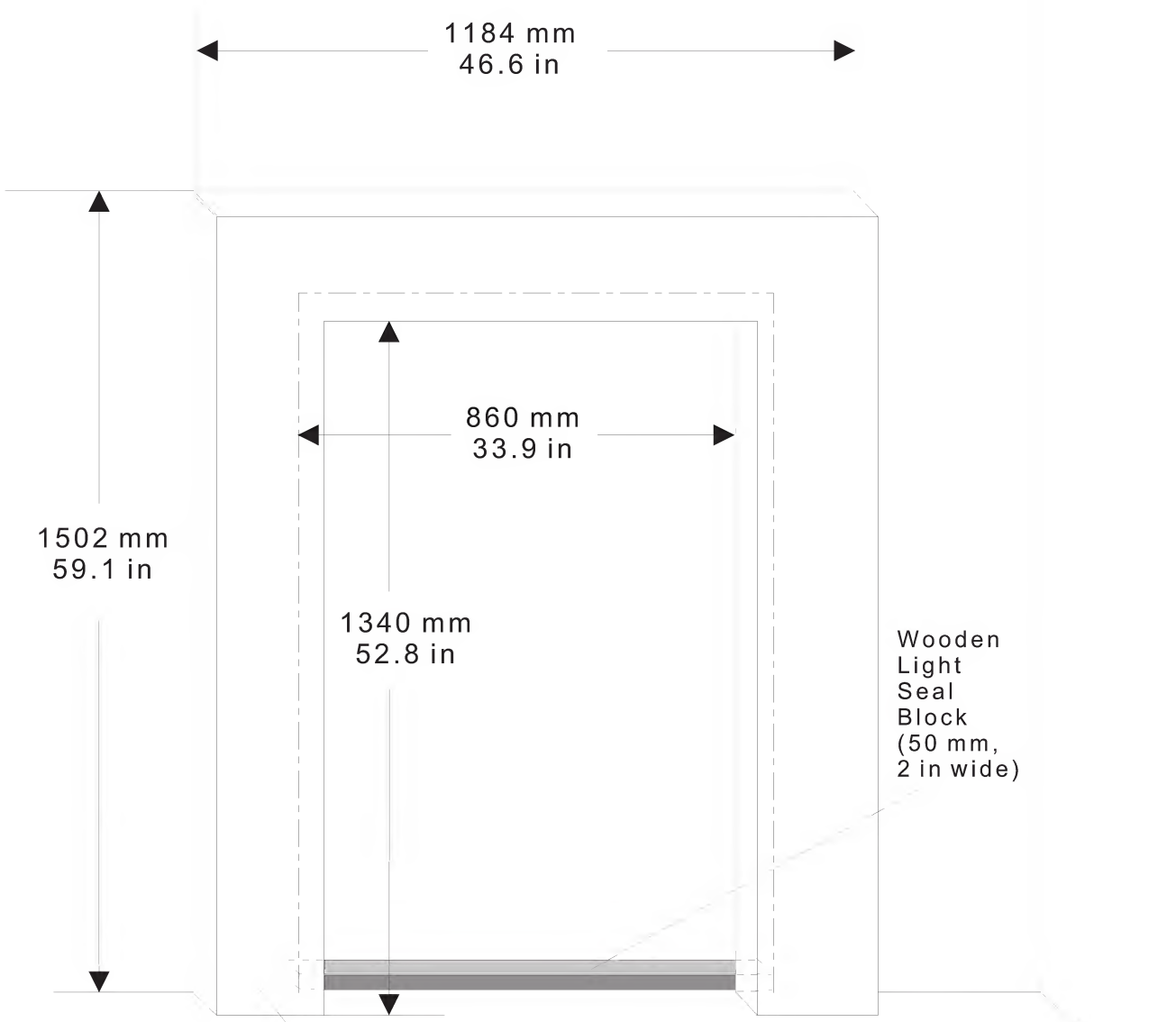
* Smooth and flat floor necessary for smooth rolling out of Processor

CUT-OUT IN THE DARK ROOM WALL.



WOODEN FRAME

In the LIGHT ROOM a wooden frame has to be mounted over the cut-out in the wall. Attached to the wooden frame on the dark-room side are velcro strips. The opposite part is part of the black cloth which is mounted to the REAR PANEL of the XML300 / XML300Plus. This will make the opening lighttight.

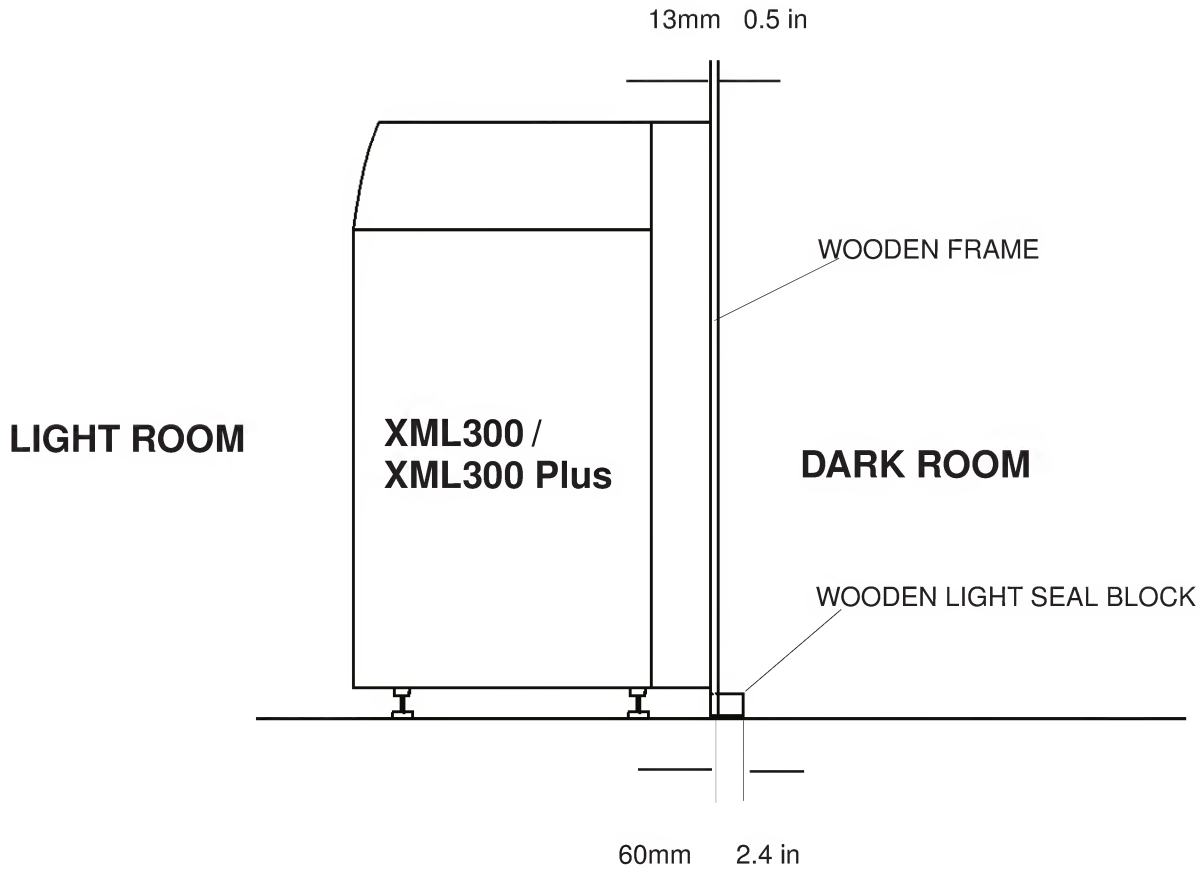


The wooden frame must be centered
over the cutout in the LIGHT ROOM WALL

LIGHT ROOM

SERVICES

All services for electricity, chemistry, water, drain and exhaust must be supplied through the dark room.



Note

If the supply lines are routed from underneath to the rear of the XML300, ensure that there is a minimum gap of 60mm (2.4 inches) between the rear side of the wooden frame and the supply lines. This gap is needed for the wooden light seal block at the bottom.

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